

APPENDIX 8

WATER QUALITY DATA SETS CONSIDERED FOR the 2014 305(b) ASSESSMENT				
Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Citizen Monitoring Programs				
Ambient Water Quality Monitoring	ALUS – Dissolved Oxygen, pH, Salinity, Temperature, Turbidity	Alliance for the Chesapeake Bay Anna Mathis 804-775-0951 www.acb-online.org	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved oxygen and temperature data collected using EPA protocols are acceptable for assessment use. Dissolved oxygen and pH results not following EPA protocols are acceptable for assessment for water quality as VA Category 3C or 3D. Data for Secchi depth, and salinity not used for assessment due to no state water quality standard.	Reference February 12, 2004 letter to Alliance for the Chesapeake Bay. 67 stations with 2,443 sample events over the six year assessment window.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature, pH SWIM-Fecal Bacteria	Blackwater Nottoway Riverkeeper Jeff Turner 757-562-5173 www.blackwaternottoway.com	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved oxygen, E. coli, pH, and Temperature were used for assessment of water quality as VA Category 3C or 3D	Reference letter February 11, 2010 to Jeff Turner. 10 stations with 189 sample events collected from January 2007 to December 2012.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, Nutrients, pH, Temperature SWIM- E. coli	Chesapeake Beach Civic League Jackie Weitzel www.cxbccivicleague.org/	QA/QC review by DEQ James Beckley 804-698-4025 Sampling occurs on privately owned lakes and not included in the assessment	14 stations with 180 sampling events collected from April 2010 to December 2012.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	Chesterfield WaterTrends/ Friends of Chesterfield's Riverfront Lorne Field 804-748-1920 www.chesterfieldriverfront.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli, dissolved oxygen, pH, and temperature data is suitable to assess water quality as VA Category 3C or 3D.	Reference letter of February 11, 2010 to Friends of Chesterfield Riverfronts 47 stations with 1,803 sample events collected during the six year assessment window.

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Ambient Water Quality Monitoring	SWIM – E. coli	Clean Virginia Waterways/ Longwood University Katie Register- CVW 434-395-2602 David Buckalew- Longwood 434-395-2586 www.longwood.edu/cleanva	QA/QC review by DEQ James Beckley 804-698-4025 E. coli data collected using EPA protocols are acceptable for assessment use.	21 stations with 726 sample events over the six year assessment window.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature	Coast Guard Auxiliary Flotilla 33 Brian McArdle http://flotilla33.org/	QA/QC review by DEQ James Beckley 804-698-4025 Follows DEQ procedures to calibrate and operate field sonde equipment.	7 stations sampled with 49 sampling events from August to October 2012
Ambient Water Quality Monitoring	SWIM – E. coli	Cowpasture River Preservation Association Polly Newlon 540-474-2858 http://cowpastureriver.org/	QA/QC review by DEQ James Beckley 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	23 stations with 400 sample events from January 2007 to December 2012
Ambient Water Quality Monitoring	ALUS- Temperature SWIM- E. coli	Cubitt Creek Monitors	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	10 stations with 70 sample events from March to September 2009
Ambient Estuary Monitoring	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	Dividing Creek Association Skip Kramb http://dividing-creek-association.com	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen, pH, temperature data using EPA protocols is acceptable for assessment use. E. coli Coliscan Easygel™ data is suitable to assess water quality as VA Category 3C or 3D.	Reference letter of February 11, 2010 to Skip Kramb. 52 stations with 1193 sample events collected from March 2008 to December 2012.

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Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Fairview Beach Residents Association Herb Cover http://www.fairviewbeach.org/	QA/QC review by DEQ James Beckley 804-698-4025 E. coli used for assessment of water quality as VA Category 3C or 3D	69 stations with 171 sampling events from June 2011 to October 2012.
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Four Creeks Monitors	QA/QC review by DEQ James Beckley 804-698-4025 E. coli used for assessment of water quality as VA Category 3C or 3D	16 stations with 193 sampling events from October 2010 to June 2012.
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Friends of Blacks Run Greenway John Reeves 540-433-9358	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to John Reeves. 14 stations with 121 observations from January to December 2006.
Ambient Water Quality Monitoring	SWIM- Enterococcus	Friends of Norfolk Environment John Stewart 757-623-8127	QA/QC review by DEQ James Beckley, 804-698-4025 Enterococcus protocol used is acceptable for assessment use.	11 stations with 132 sample events collected from January to December 2010
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, Nutrients, pH, Temperature, DRINKING- Nitrate SWIM- E. coli	Friends of the North Fork Shenandoah River Leslie Mitchell-Watson 540-459-8550 http://www.fnfsr.org/	QA/QC review by DEQ James Beckley, 804-698-4025. The methods passing QA/QC checks are acceptable for assessment for ammonia, dissolved oxygen, pH, and temperature. Nitrite data only assessed for public water supply use.	Nitrate, orthophosphate, and turbidity not assessed due to no Virginia water quality standards for comparison. Laboratory analysis conducted by the Friends of Shenandoah River. 8 stations with 98 sample events collected from April to December 2010

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Ambient Water Quality Monitoring	ALUS- Temperature SWIM- E. coli	Friends of the Russell Fork http://forf.weebly.com/	QA/QC review by DEQ James Beckley, 804-698-4025 E. coli, and temperature data is suitable to assess water quality as VA Category 3C or 3D.	19 stations with 324 sample events collected from January 2009 to July 2010.
Ambient Water Quality Monitoring	ALUS – Dissolved Oxygen, Nutrients, pH, Temperature SWIM- E. coli	Friends of the Shenandoah River Karen Andersen 540-665-1286 www.fosr.org	QA/QC review by DEQ James Beckley, 804-698-4025. The methods passing QA/QC checks are acceptable for assessment for ammonia, dissolved oxygen, E. coli, pH, and temperature. Nitrite data only assessed for public water supply use.	Nitrate, orthophosphate, and turbidity not assessed due to no Virginia water quality standards for comparison. 233 stations with 12,002 sample events collected during the six year assessment window
Ambient Water Quality Monitoring	SWIM- E. coli	George Mason High School Dr. Peter Mecca 703.248.5500 ext. 3043	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	4 stations with 74 sample events from February 2009 to December 2012.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	Goose Creek Association Andrea Rosse 540-687-3073 www.goosecreek.org/	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen, E. coli pH, temperature data used for assessment of water quality as VA Category 3C or 3D	Reference letter February 14, 2013 to Andrea Rosse. 21 stations with 519 sample events collected during the six year assessment window.
Ambient Water Quality Monitoring	ALUS – Dissolved Oxygen, Nutrients, pH, Temperature, Total Suspended Solids	Historic Green Springs, Inc. 540-967-1099	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen and total phosphorus tests meeting QA/QC requirements, and temperature data are acceptable for assessment.	Reference letter February 11, 2010 to Robin Patton. Data for TSS and total nitrogen were not used for assessment because the state does not have water quality standards for

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			Dissolved oxygen, total phosphorus data not meeting QA/QC requirements and pH data were determined acceptable for assessment of water quality as VA Category 3C or 3D.	comparison. 7 stations with 79 sample events collected during the six year assessment window.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen,	Hoffler Creek Wildlife Foundation Ashley Morgan 757-686-8684 www.hofflercreek.org/	QA/QC review by DEQ James Beckley, 804-698-4025 Dissolved oxygen, pH, and temperature data is suitable to assess water quality as VA Category 3C or 3D.	Secchi and salinity data not used for assessment because the state does not have water quality standards for comparison. 1 station with 72 sample events collected from January 2009 to December 2012
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature	Isle of Wight Ruritan Club Mitchell Norman www.facebook.com/pages/Isle-of-Wight-Ruritan-Club	QA/QC review by DEQ James Beckley, 804-698-4025. Upon review of sample collection protocols, dissolved oxygen, pH, and temperature data is suitable to assess water quality as VA Category 3C or 3D.	Reference letter February 11, 2010 to Mitchell Norman. 12 stations with 160 sample events monitored during the 6 year assessment window.
Ambient Lake Monitoring	ALUS – Dissolved Oxygen, Nutrients, pH, Secchi Depth, Temperature SWIM – Fecal Bacteria	Lake Anna Civic Association Ken Remmers www.lakeannavirginia.org	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen, pH, temperature, total phosphorous and E. coli data are acceptable for assessment.	45 stations with 2073 sample events over the six year assessment window.
Ambient Lake Monitoring	ALUS – Dissolved Oxygen, Nutrients, pH, Secchi Depth, Temperature SWIM – Fecal Bacteria	Lake Monticello Owners Association Catherine Neelley http://www.lmoavoice.org/	QA/QC review by DEQ James Beckley 804-698-4025 Sampling occurs on privately owned lake and not included in the assessment	12 stations with 316 sample events over the six year assessment window.

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Ambient Lake monitoring	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	Leesville Lake Association Michael Lobue www.leesvillelake.org	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen, pH, temperature data are acceptable for assessment. E. coli Coliscan Easygel™ data is acceptable for VA Category 3C and 3D purposes.	Reference May 2007 Quality Assurance Project Plan. 12 stations with 1232 sample events during the six year assessment window.
Ambient Water Quality Monitoring	SWIM- E. coli	Loudoun Watershed Watch David Ward http://loudounwatershedwatch.org/	E. coli used for assessment of water quality as VA Category 3C or 3D	14 stations with 526 sample events collected during the six year assessment window.
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	McClure River Restoration Project Noreen Fleming 276-926-6621 http://mrrp.weebly.com/	QA/QC review by DEQ James Beckley 804-698-4025. E. coli samples are acceptable for assessment.	Reference letter February 15, 2008 to McClure River Restoration Project. 43 stations with 637 sample events.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, Temperature SWIM- Fecal Bacteria	Nansemond River Preservation Alliance Nicholas Worth http://nansemondriverpreservationalliance.org/	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen and temperature acceptable for assessment. E. coli and pH data used for assessment of water quality as VA Category 3C or 3D.	Reference September 30, 2011 QAPP. 7 stations with 84 sample events from February to December 2012
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	National Committee for the New River Courtney Wait 336-982-6267 www.ncnr.org	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved oxygen, and temperature data are suitable for assessment. E. coli and pH data suitable for VA Category 3C or 3D assessment.	Reference letter February 11, 2010 to Courtney Wait. 38 stations with 472 sample events collected from April 2008 to December 2012.

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Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Nelson County Master Gardeners www.nelsonmastergardeners.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	13 stations with 70 sample events collected from May to December 2008.
Ambient Water Quality Monitoring	ALUS- Temperature SWIM- Fecal Bacteria	Pebble Creek Property Owners Association Christine Beish www.pebblecreekpoa.com/	QA/QC review by DEQ James Beckley, 804-698-4025. Temperature data used for assessment. E. coli used for assessment of water quality as VA Category 3C or 3D	4 stations with 44 sample events from July 2011 to February 2012.
Ambient Water Quality Monitoring	ALUS- pH, Temperature SWIM- E. coli	Phi Theta Kappa- Blue Ridge Community College Larry Rasheed (540) 453-2388	QA/QC review by DEQ James Beckley, 804-698-4025 Calibrated pH probe data acceptable for assessment. E. coli and temperature data used for assessment of water quality as VA Category 3C or 3D	2 stations with 36 sample events from January to December 2010
Ambient Water Quality Monitoring	ALUS- pH, Salinity, Temperature SWIM – Fecal Bacteria	Poquoson Citizens for the Environment Philip Prisco http://poquosoncitizensfortheenvironment.org/about/	QA/QC review by DEQ James Beckley, 804-698-4025. Temperature and pH data passing calibration checks are acceptable for assessment. E. coli used for assessment of water quality as VA Category 3C or 3D	32 stations with 408 sample events from January 2008 to December 2012.
Ambient Water Quality Monitoring	ALUS- Benthic, Dissolved Oxygen, pH, Temperature	Potomac Appalachian Trail Club Robert Pickett http://potomacappalachian.org	QA/QC review by DEQ James Beckley, 804-698-4025. Benthic macroinvertebrate, dissolved oxygen, pH, and temperature data are suitable for VA Category 3C or 3D assessment.	7 stations with 17 sample events collected from March 2007 to December 2008.

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Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Randolph Macon College Dr. Charles Gowan 804-752-7293	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to Dr. Charles Gowan. 30 stations with 226 observations collected January to October 2006.
Ambient Water Quality Monitoring	ALUS- Temperature SWIM- Fecal Bacteria	RappFLOW Beverly Hunter 540-937-4038 www.rappflow.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli, temperature results were acceptable for of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to Beverly Hunter. 12 stations with 24 observations collected from April to December 2006.
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Rippon Middle School Rebecca Payne	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	6 stations with 21 sample events from June to December 2012.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature SWIM- E. coli	Riverine Chapter of the Virginia Master Naturalists Kathleen Ogilvy www.riverinemn.org/	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli, pH, temperature, and dissolved oxygen used for assessment of water quality as VA Category 3C or 3D	6 stations with 38 observations collected from March 2009 to April 2012.
Ambient Water Quality Monitoring	ALUS- Temperature SWIM- E. coli	Roanoke Valley Chapter Trout Unlimited Bill Bainter http://roanoketu.org/	QA/QC review by DEQ James Beckley, 804-698-4025. Temperature data used for assessment. E. coli used for assessment of water quality as VA Category 3C or 3D	10 stations with 30 sampling events from December 2011 to January 2012
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Rockfish Valley Foundation Peter Agelasto www.rockfishvalley.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	6 sites with 42 sample events from January to September 2007

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Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Save Little Pimmit Run http://savelittlepimmitrun.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	5 sites with 22 sample event from February to July 2008
Ambient Lake Monitoring	ALUS – Chlorophyll a, Dissolved Oxygen, Nutrients, pH, Secchi Depth, Temperature SWIM – Fecal Bacteria	Smith Mountain Lake Association/ Ferrum College Dr. Carolyn Thomas 540-365-4368 www.smlassociation.org	QA/QC review by DEQ James Beckley, 804-698-4025 After reviewing sample collection protocols, and lab audit, dissolved oxygen, E. coli, pH, and temperature were acceptable for assessment use. Chlorophyll a and total phosphorus data is suitable to assess water quality as VA Category 3C or 3D.	Reference letter of February 11, 2010 to Dr. Thomas. 141 stations with 4,912 sample events collected during the six year assessment window.
Ambient Water Quality Monitoring	ALUS- Selenium	Southern Appalachian Mountain Stewards Matt Helper www.samsva.org/	QA/QC review by DEQ James Beckley, 804-698-4025 Selenium data meets proper collection protocols and is acceptable for assessment.	6 samples with 7 sample events from June to December 2011.
Benthic Macroinvertebrate Monitoring	ALUS – Benthic SWIM- E. coli	StreamWatch Anne Dunckel 434-249-5306 www.streamwatch.org	QA/QC review by DEQ James Beckley, 804-698-4025. After completion of a validation study and review of protocols, StreamWatch Adopted Stream Condition Index (ASCI) is equal to DEQ protocols. Benthic macroinvertebrate ASCI data is acceptable for assessment. E. coli used for assessment of water quality as VA Category 3C or 3D	Reference letter February 11, 2010 to John Murphy. 111 stations with 1,257 sampling events collected over the six-year assessment window.

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Ambient Water Quality Monitoring	ALUS – Dissolved Oxygen, Nutrients, pH, Secchi Depth, Temperature SWIM- Fecal Bacteria	Timberlake Homeowners Association	QA/QC review by DEQ James Beckley, 804-698-4025. Upon review of sampling methods, calibration logs, equipment and use of DCLS for laboratory analysis, data is acceptable for assessment purposes.	Reference letter February 15, 2008 to Kenneth Bumgarner. 11 stations with 77 sample events from March to September 2007
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Upper Tennessee River Roundtable Carol Doss www.upperrnriver.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to Martha Chapman. 8 stations with 54 sample events collected from January to August 2007
Benthic Macroinvertebrate Monitoring	ALUS – Benthic	Virginia Save Our Streams Leah Miller 301-548-0150 x219 www.vasos.org	QA/QC plan and SOPs for benthic macroinvertebrates. James Beckley, 804-698-4025 Benthic macroinvertebrate data used for assessment of water quality as VA Category 3C or 3D.	Reference letter February 15, 2008 to Virginia Save Our Streams. 351 stations with 1,696 sampling events collected over the six-year assessment window.
Soil and Water Conservation Districts				
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature, SWIM- Fecal Bacteria	John Marshall SWCD Michael Trop 540 347-3120 www.fauquiercounty.gov/government/departments/jmswcd	QA/QC review by DEQ James Beckley, 804-698-4025. Dissolved oxygen, E. coli, pH, and temperature used for assessment of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to Chuck Hoysa. 35 stations with 1,677 sample events collected over the six-year assessment window.
Ambient Water Quality Monitoring	SWIM- E. coli	Lord Fairfax SWCD http://lfsxcd.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to Lisa Zirkle. 4 stations with 109 sample events from January to October 2007.

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Ambient Water Quality Monitoring	SWIM- E. coli	Prince William SWCD Kelly Jimenez 703-594-3621 www.pwswcd.org	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	12 stations with 139 sample events from May 2010 to March 2011.
Ambient Water Quality Monitoring	SWIM- E. coli	Southside SWCD Patricia Mays 434-542-5342	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	21 stations with 762 sample events from April 2009 to May 2012.
Ambient Water Quality Monitoring	SWIM- E. coli	Thomas Jefferson SWCD Emily Nelson 434-975-0224 http://tjswcd.org/	QA/QC review by DEQ James Beckley, 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	11 stations with 305 sample events from July 2009 to August 2012.
DEQ Chesapeake Bay Program				
Chesapeake Bay Biological Monitoring	ALUS – Benthic B-IBI	DEQ-CBP Cindy Johnson 804-698-4385	Documented QA/QC Plan Cindy Johnson	Approx. 21 mainstem and tributary fixed stations, 60 random stations yearly
Chesapeake Bay Program Water Quality Monitoring	ALUS – Chlorophyll a Dissolved Oxygen, Nutrients, pH, Temperature	DEQ-CBP Cindy Johnson 804-698-4385	Documented QA/QC Plan Cindy Johnson	104 mainstem and tributary, and non-tidal stations sampled during the assessment cycle
DEQ Ambient and Biological Water Quality Monitoring Program				
Ambient Watershed Monitoring Program – Water Column	ALUS – Dissolved Oxygen, Nutrients, pH, Temperature SWIM – Fecal Bacteria	DEQ-WQA Roger Stewart 804 698-4449	Documented QA/QC Plan James Beckley (804) 698-4025	Approximately 2500 stations monitored monthly or quarterly for entire 305(b) window.
Biological Monitoring Program	ALUS – Benthic, Dissolved Oxygen, pH, Temperature	DEQ-WQA Richard Browder 804-698-4134	Protocols and QA/QC Plan: Alex Barron 804-689-4119	Approximately 120 stations sampled twice a year (spring & fall) by Regional Biologists

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Statewide Lake Monitoring	ALUS – Chlorophyll a, Dissolved Oxygen, Nutrients, pH, Sediment Organics & Metals, Temperature SWIM – Fecal Bacteria	DEQ-WQA Richard Browder 804-698-4134	Followed ambient watershed QA/QC procedures	Approx. 100 significant lakes. Regions sample priority ranked lakes 3 seasons for one year out of 5 on rotation
Harmful Algal Bloom Monitoring Program	ALUS- HAB SWIM- HAB	DEQ- WQA Cindy Johnson 804-698-4385	Protocols and QA/QC Plan: Cindy Johnson 804-698-4385	29 stations sampled
DEQ Water Quality Standards Program				
Statewide Fish Tissue Program	FISH – Fish Tissue Analysis	DEQ-WQS Alex Barron 804-689-4119	Protocols and QA/QC Plan: Alex Barron 804-689-4119	37 stations sampled
Statewide Sediment Contamination Program	ALUS – Sediment Organics, Sediment Metals	DEQ-WQS Alex Barron 804-689-4119	Protocols and QA/QC Plan: Alex Barron 804-689-4119	Approximately 40-80 selected stations sampled each year.
James River Monitoring of Fish Tissue for Kepone	ALUS – Kepone	DEQ-WQS Alex Barron 804-689-4119	Protocols for fish sampling Kepone verified by VIMS: Alex Barron 804-698-4119	Five stations in James River sampled once every two years.
Wadeable Stream Nutrient Criteria pilot Project	ALUS- Nutrients	DEQ-WQS David Whitehurst 804-698-4121	Followed ambient watershed QA/QC procedures	46 stations
DEQ Special Studies				
Ammonia Special Study	ALUS- Ammonia	BRRO-BRRO-Lynchburg Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	7 stations
Buffalo River TMDL	ALUS- Benthic SWIM– Fecal Bacteria	BRRO-BRRO-Lynchburg Greg Anderson 540-562-6871	Followed ambient and benthic QA/QC procedures	13 stations
North Creek TMDL	ALUS- Benthic	BRRO-BRRO-Lynchburg Greg Anderson 540-562-6871	Followed benthic QA/QC procedures	4 stations
Pedlar River E. coli TMDL Study	SWIM- Fecal Bacteria	BRRO-BRRO-Lynchburg Greg Anderson 540-562-6871	Followed benthic QA/QC procedures	3 stations

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Roanoke River PCB study	ALUS- PCB FISH- PCB	BRRO-BRRO-Lynchburg Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	19 stations
Blackwater River (Franklin County) TMDL	ALUS– Dissolved Oxygen, Nutrients, pH, Temperature SWIM- Fecal Bacteria	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	16 stations
Jackson River TMDL	ALUS- Benthic	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed benthic QA/QC procedures	15 stations
Looney Creek TMDL	SWIM- Fecal Bacteria	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	1 station
New River Valley TMDL	ALUS- Benthic SWIM- Fecal Bacteria FISH- PCB's	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient and benthic QA/QC procedures	13 stations
Pigg River Watershed TMDL Study	SWIM- Fecal Bacteria	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	9 stations
Roanoke River Watershed TMDL	ALUS- Temperature, SWIM- Fecal Bacteria	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	10 stations
South Mayo River TMDL	ALUS– Dissolved Oxygen, pH, Temperature SWIM – Fecal Bacteria	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient QA/QC procedures	3 stations
Stroubles Creek TMDL	ALUS– Benthic, Dissolved Oxygen, pH, Temperature	DEQ- BRRO-Roanoke Greg Anderson 540-562-6871	Followed ambient and benthic QA/QC procedures	3 stations
Accotink Creek TMDL	ALUS- Benthic	DEQ- NRO Bryant Thomas 703-583-3843	Followed benthic QA/QC procedures	3 stations
Broad Run Benthic Stressor TMDL	ALUS- Dissolved Oxygen, pH, Temperature, Metals, Nutrients	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	6 stations

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Catoctin Creek TMDL Implementation Plan Monitoring	SWIM- Fecal Bacteria	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	3 stations
Difficult Run TMDL	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient and benthic QA/QC procedures	8 stations
Goldmine Creek TMDL	ALUS- Dissolved Oxygen	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	1 station
Lower Rapidan River TMDL	SWIM- Fecal Bacteria	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	6 stations
Massaponax Creek Special Study	ALUS- pH SWIM- Fecal Bacteria	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	6 stations
Potomac River Shallow Water Tidal Embayment Monitoring Program	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	13 stations
Rappahannock River Bacteria TMDL Study	SWIM- Fecal Bacteria	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	2 stations
Rush River Benthic and Water Chemistry Special Study	ALUS- Benthic, Dissolved Oxygen, pH, Temperature	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient and benthic QA/QC procedures	4 stations
Shallow Water Continuous Monitoring in Tidal Potomac	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	4 stations
South and North Fork Catoctin Creek TMDL	ALUS- Metals, Nutrients, Solids SWIM- Fecal Bacteria	DEQ- NRO Jeff Talbott 703-583-3902	Followed ambient QA/QC procedures	12 stations
Terry's Run Special Study	ALUS- Dissolved Oxygen	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	4 stations
Thumb Run TMDL Implementation Plan Monitoring	SWIM- Fecal Bacteria	DEQ- NRO Bryant Thomas 703-583-3843	Followed ambient QA/QC procedures	1 station

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Trippe and Holmes Run TMDL	ALUS- Metals, Nutrients, Solids SWIM- Fecal Bacteria	DEQ- NRO Jeff Talbott 703-583-3902	Followed ambient QA/QC procedures	2 stations
Appomattox- Hopewell Sediment Special Study	ALUS- Metals, Organic Compounds,	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	3 stations
Beaverdam Creek TMDL and Class VII Special Study	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	7 stations
Blackwater and Warwick Swamp TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	32 stations
Blackwater River (Sussex County) TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	16 stations
Bridges Creek TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	6 stations
Buckskin Creek TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	10 stations
Bush Mill Stream Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	5 stations
Chickahominy River Mercury TMDL	ALUS- Mercury	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	11 stations
Chickahominy River Unnamed Tributary TMDL	ALUS- Benthic	DEQ- PRO Mark Alling 804-527-5021	Followed benthic QA/QC procedures	7 stations
Coan Mill Stream TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	5 stations
Collins Run TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling	Followed ambient QA/QC procedures	20 stations

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WATER QUALITY DATA SETS CONSIDERED FOR the 2014 305(b) ASSESSMENT				
Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
		804-527-5021		
Crump Creek TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	6 stations
Diascund Creek Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	12 stations
Dickeys Swamp Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	9 stations
Elmwood Creek Natural pH Assessment	ALUS- Dissolved Oxygen, pH, Temperature, Nutrients	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	4 stations
Farmers Hall Creek Natural pH Assessment	ALUS- Dissolved Oxygen, pH, Temperature,	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	1 station
Flat, Nibbs, Deep, and West Creeks TMDL Implementation Plan	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient and benthic QA/QC procedures	16 stations
Fox Mill Run TMDL and Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	8 stations
Hornquarter Swamp Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	3 stations
Hoskins Creek TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	11 stations
James River Bacterial TMDL Study	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	70 stations
James and York River tributaries Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	12 stations
Little Wicomico River TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling	Followed ambient QA/QC procedures	2 stations

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
		804-527-5021		
Masons Mill Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	1 station
Mattaponi River TMDL	FISH- Mercury	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	8 stations
Meherrin River and Great Creek TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	36 stations
Mill Creek (Northumberland County) TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	2 stations
Monquin Creek Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	17 stations
Monroe Creek Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	14 stations
Mud Creek Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	1 station
Pamunkey River Bacteria TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	2 stations
Pamunkey River Mercury TMDL	FISH- Mercury	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	9 stations
Pamunkey River Unnamed Tributary Bacteria TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	2 stations
Popes Creek Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	15 stations
Rappahannock River Mercury TMDL	FISH- Mercury	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	9 stations

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WATER QUALITY DATA SETS CONSIDERED FOR the 2014 305(b) ASSESSMENT				
Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Rumley Marsh Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	7 stations
Severn River TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	3 stations
Spring Branch TMDL	ALUS- Benthic	DEQ- PRO Mark Alling 804-527-5021	Followed benthic QA/QC procedures	10 stations
Stony Run TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	15 stations
Sullens Creek Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	6 stations
Tastine Swamp TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	17 stations
Thompson Branch Class VII Swamp Water Study	ALUS- Dissolved Oxygen, pH, Temperature	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	1 station
Totuskey Creek TMDL	SWIM- Fecal Bacteria	DEQ- PRO Mark Alling 804-527-5021	Followed ambient QA/QC procedures	26 stations
Bluestone River TMDL	ALUS- Benthic FISH- PCB SWIM- Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient and benthic QA/QC procedures	4 stations
Bull Creek TMDL	ALUS- Benthic	DEQ- SWRO Stewart Phipps 276-676-4839	Followed benthic QA/QC procedures	1 station
Clinch River Basin Benthic Survey	ALUS- Benthic	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient QA/QC procedures	36 stations
Clinch River TMDL	SWIM- Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient QA/QC procedures	7 stations

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Clinch River Dominion Power Mercury Study	ALUS- Mercury	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient QA/QC procedures	5 stations
Clinch River (Tazewell County) TMDL	ALUS- Benthic	DEQ- SWRO Stewart Phipps 276-676-4839	Followed benthic QA/QC procedures	6 stations
Clinch and Powell River Clean Rivers Initiative	ALUS- Dissolved Oxygen, pH, Temperature, Metals, Nutrients	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient QA/QC procedures	1 station
Guest River TMDL	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient and benthic QA/QC procedures	1 station
North Fork Holston and Tributaries TMDL	SWIM- Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient QA/QC procedures	12 stations
Pound River TMDL	ALUS- Benthic	DEQ- SWRO Stewart Phipps 276-676-4839	Followed benthic QA/QC procedures	4 stations
Powell River TMDL	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient and benthic QA/QC procedures	12 stations
Three Creeks TMDL	SWIM- Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed ambient QA/QC procedures	3 stations
Wise County Straight Pipe Study	ALUS- Benthic SWIM – Fecal Bacteria	DEQ- SWRO Stewart Phipps 276-676-4839	Followed benthic QA/QC procedures	3 stations
Harmful Algal Bloom Monitoring	ALUS– Chlorophyll a, Dissolved Oxygen, Nutrients, pH, Temperature SWIM- Fecal Bacteria	DEQ- TRO Roger Everton 757-518-2150	Followed ambient watershed QA/QC procedures	21 stations
Lafayette River Bacteria Special Study	SWIM- Fecal Bacteria	DEQ- TRO Roger Everton 757-518-2150	Followed ambient watershed QA/QC procedures	16 stations

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Bacteria Soure Tracking Study	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	2 stations
Cedar Creek TMDL Study	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	8 stations
Cooks Creek and Blacks Run TMDL	SWIM– Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	6 stations
Crooked Run TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	11 stations
Hawksbill and Mill Creek TMDL	ALUS– Dissolved Oxygen, Nutrients, pH, Temperature SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	5 stations
Hays and Walker Creek TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	3 stations
Hogue Creek TMDL	ALUS- Benthic, Temperature SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient and benthic QA/QC procedures	2 stations
Holmans Creek TMDL Implementation Plan Monitoring	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient and benthic QA/QC procedures	1 station
Laurel, Fridley Run, Liddle Stoney Creek Benthic TMDL Study	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	4 stations
Little Calfpasture River TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	1 stations
Long Meadow and Turley Creek TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	6 stations

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Maury River TMDL	ALUS- Benthic FISH- PCB	DEQ- VRO Donald Kain 540-574-7815	Followed ambient and benthic QA/QC procedures	1 station
Meadow Creek and Shencks Branch TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	18 stations
Moores Creek TMDL	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient and benthic QA/QC procedures	1 station
Mossy, Long Glade, Naked, Middle, Moffetts, Upper South, Christians, Polecat Creeks Bacteria TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	14 stations
Naked Creek TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	2 stations
North River Tributaries TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	5 stations
Opequon Creek and Abrams Creek TMDL Implementation Plan	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	3 stations
Rivanna River TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	4 stations
Rivanna River and North Fork Rivanna River TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	7 stations
Rockfish Bacteria and Benthic TMDL Study	ALUS- Benthic SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient and benthic QA/QC procedures	4 stations
Shenandoah Fish Kill Task Force Study	ALUS- Unknown	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	45 stations
Smith Creek TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	4 stations

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Smith River Phased Benthic TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	8 stations
Smith Creek, Mountain Run, Fridley Run TMDL	ALUS- Benthic	DEQ- VRO Donald Kain 540-574-7815	Followed benthic QA/QC procedures	4 stations
South River and South Fork Shenandoah TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	13 stations
South River Sediment Study	ALUS- Water Clarity	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	39 stations
South River and Shenandoah River Smallmouth Bass Mercury Special Study	FISH- Mercury	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	14 stations
Spout Run TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	10 stations
Tye River TMDL	SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient QA/QC procedures	3 stations
West Straight Creek TMDL	ALUS- Benthic, Dissolved Oxygen, Nutrients, Metals, Oxygen Demand, pH, Solids, Temperature SWIM- Fecal Bacteria	DEQ- VRO Donald Kain 540-574-7815	Followed ambient and benthic QA/QC procedures	5 stations
Estuarine Probabilistic Monitoring Program (minor Chesapeake Bay and coastal tidal tributaries)	ALUS- Chlorophyll a, Dissolved Oxygen, Nutrients, pH, Sediment Triad (chemistry, toxicity, benthos), Temperature FISH- Fish Tissue Chemistry	DEQ-WQA Donald Smith 804-698-4429.	Protocols and QA/QC Plan: James Beckley 804-698-4025 QA/QC of field audits, at DCLS laboratories and of locally analyzed results.	260 sample stations during the six year window. Assessed cumulative parameter data, such as sediment and tissue chemistry, sediment toxicity and benthic community structure using a 'weight of evidence' approach.

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Near Shore Oceanic Survey	ALUS Dissolved Oxygen, Nutrients, pH, Sediment Triad (chemistry, toxicity, benthos), Temperature, SWIM- Fecal Bacteria	DEQ-WQA Donald Smith 804-698-4429	Protocols and QA/QC Plan: James Beckley 804-698-4025 QA/QC of field audits, at DCLS laboratories and of locally analyzed results.	21 stations sampled once during August 2010. Samples collected off the Eastern Virginia shore using an EPA research vessel. Samples analyzed at DCLS and EPA contracted laboratories
Elizabeth and Upper James, Tidal James, New River, and Mountain Run PCB TMDL Special Study	FISH- PCB	DEQ- WQP Mark Richards 804-698-4392	Followed ambient QA/QC procedures	86 stations
Middle Roanoke River PCB study	FISH- PCB	DEQ- WQP Mark Richards 804-698-4392	Followed ambient QA/QC procedures	7 stations
PCB Fish Consumption Study	FISH- PCB	DEQ- WQP Mark Richards 804-698-4392	Followed ambient QA/QC procedures	50 stations
Publically Owned Treatment Works Hardness Addition Study	ALUS- Dissolved Oxygen, pH, Temperature, Metals	DEQ- WMA Roger Stewart 804-698-4449	Followed ambient QA/QC procedures	6 stations
Rappahannock and York River PCB GMU Study	ALUS- Dissolved Oxygen, pH, Temperature, PCB	DEQ- WQP Mark Richards 804-698-4392	Followed ambient QA/QC procedures	11 stations
Non-Citizen, Non-Agency Monitoring				
Ambient Water Quality Monitoring	ALUS- Copper	Appalachian Electric Power Jonathan Magalski 614-716-2240 www.smithmtn.com/AquaticVegetation/Default.aspx	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved copper analysis is acceptable for assessment use.	10 stations with 60 sample events from June 2007 to September 2009

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Coal Fields Benthic Macroinvertebrate Sampling	ALUS- Benthic	Appalachian Technical Services Inc. Travis N. Lowe 276-328-4200 http://www.atstone.com/	QA/QC review by DEQ James Beckley 804-698-4025. Review of sampling and sorting protocol follows DEQ procedures. Data acceptable for assessment use.	155 stations with 266 sample events from April to November 2011
Reservoir Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature, Nutrients	City of Norfolk Department of Utilities David S. Rosenthal 757-441-5774 x 253 www.norfolk.gov/utilities/resources	QA/QC review by DEQ James Beckley 804-698-4025. Review of procedures and data is acceptable for assessment use	18 stations with 7,557 sample events (including depth profiles) from January 2007 to December 2012
Lower Nansemond River Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature, Nutrients SWIM- Fecal Bacteria	City of Suffolk Department of Public Works Edward G. Heide 757-514-7675 www.suffolkva.us	QA/QC review by DEQ James Beckley 804-698-4025. Review of procedures and data is acceptable for assessment use	18 stations with 320 sample events from April 2011 to November 2012
Ambient Water Quality Monitoring	ALUS- Chloride, pH	Cumberland Resources Corporation Brooks Smith 804-787-8086	QA/QC review by DEQ James Beckley 804-698-4025. Upon review of sampling procedures and laboratory protocols, chloride and pH data is accepted for assessment use.	2 stations with 46 sample events collected from January 2008 to October 2010.
Virginia State Parks Beach Monitoring Program	SWIM- Fecal Bacteria	DCR Beach program Theresa Duffey 804-786-9025	QA/QC review by DEQ James Beckley 804-698-4025. Upon review of sampling procedures and laboratory protocols, data is accepted for assessment use.	42 stations with 1049 sampling events from May 2007 to September 2012.
Ambient Water Quality Monitoring	ALUS– Dissolved Oxygen, Nutrients, pH, Temperature SWIM– Fecal Bacteria	Edge Valley Preservation LLC Leif Riddervold 434-295-3700	QA/QC review by DEQ James Beckley 804-698-4025. After review of sampling and laboratory protocols, nutrient and E. coli data is acceptable for assessment. Dissolved oxygen, pH, and temperature data acceptable for VA Category 3C and 3D determination.	8 sample stations with 48 sample events collected from March 2007 to February 2008.

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	James City County Stormwater Division Suzanne Dyba 757-259-1460 www.jccegov.com/stormwater	QA/QC review by DEQ James Beckley 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	12 stations with 140 sample events collected from April 2009 to March 2010
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, Nutrients, pH, Temperature	National Park service- Assateague Island National Seashore Brian Sturgis 410-629-6075	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved oxygen, nutrients, pH, and temperature accepted for assessment use.	6 stations with 423 sample events from January 2007 to December 2009
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, pH, Temperature	National Park Service- Mid Atlantic Monitoring Network Jim Comiskey 540-654-5328 http://science.nature.nps.gov/im/units/midn/	QA/QC review by DEQ James Beckley 804-698-4025. Data collected for dissolved oxygen, pH, and temperature using DEQ calibration protocols accepted for assessment use.	38 stations with 730 sample events collected from October 2008 to December 2012.
Ambient Estuarine Monitoring	ALUS- Dissolved Oxygen, pH, Temperature	National Park Service Northeast Coastal and Barrier Network http://science.nature.nps.gov/im/units/ncbn/	QA/QC review by DEQ James Beckley 804-698-4025. Data collected for dissolved oxygen, pH, and temperature using DEQ calibration protocols accepted for assessment use.	102 stations with 653 sample events from August 2008 to August 2011.
Routine Reservoir Monitoring	ALUS- Dissolved Oxygen, pH, Temperature	Ocoquan Watershed Monitoring Laboratory Harry Post 703-361-5606 www.owml.vt.edu/	QA/QC review by DEQ James Beckley 804-698-4025. Sample collection protocols, analytical methods, and laboratory reviewed. Dissolved oxygen, pH, and temperature data is accepted by DEQ	Reference letter February 15, 2008 to Harry Post. 8 stations with 5,314 sample events collected during six years of the assessment window

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WATER QUALITY DATA SETS CONSIDERED FOR the 2014 305(b) ASSESSMENT				
Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	Page County Department of Environmental Services www.pagecounty.virginia.gov	QA/QC review by DEQ James Beckley 804-698-4025. E. coli used for assessment of water quality as VA Category 3C or 3D	Reference letter February 15, 2008 to Page County Department of Environmental Services. 21 stations with 341 observations collected from January 2007 to February 2010.
Ambient Lake Monitoring	ALUS- Dissolved Oxygen, pH, Temperature, Secchi Depth	Pocahontas State Park Irene Frentz http://www.dcr.virginia.gov/state-parks/pocahontas.shtml	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved Oxygen, pH, and temperature used for assessment of water quality as VA Category 3C or 3D	1 station with 62 sample events from April 2011 to October 2012.
Routine Reservoir monitoring	SWIM- Fecal Bacteria ALUS- Dissolved Oxygen, pH, Temperature, Nutrients, Chlorophyll, Metals	Tennessee Valley Authority Susan Malone 423-876-4179 www.tva.gov/environment/water	QA/QC review by DEQ James Beckley 804-698-4025. E. coli data is acceptable for assessment purposes. Field parameters, nutrients, and metals used for assessment of water quality as VA Category 3C or 3D	3 stations with 597 observations from April 2007 to October 2010.
Benthic Macroinvertebrate Monitoring	ALUS-Benthic Monitoring	United States Forest Service Dawn Kirk 540-291-1759 www.fs.fed.us	QA/QC review by DEQ James Beckley 804-698-4025. ALUS method comparable to DEQ protocols.	139 stations with 1,488 biological sample events collected from April 2007 to May 2012.
Ambient Water Quality Monitoring	ALUS- Dissolved Oxygen, Metals, PCB's, pH, Temperature	United States Geological Survey Kenneth E. Hyer 804-261-2636 http://va.water.usgs.gov	Standard methods are used. Data included in assessment for parameters that have Virginia Water Quality Standards	127 ambient stations with 1,526 sample events. 15 continuous monitoring stations with 346,575 sample events collected during the six years of the assessment window.

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Data Set	Parameters/Use Goals	Organization/Contact	QA/QC Review	Comments
Ambient Water Quality Monitoring	SWIM- Fecal Bacteria	VDH Beach Monitoring Program www.vdh.virginia.gov/Epidemiology/DEE/BeachMonitoring/	Methods for sampling Enterococcus are consistent with DEQ sampling and testing procedures. Bacteria data is acceptable for assessment purposes.	56 stations with 5,652 bacteria samples collected from May to October during the six year assessment window.
Ambient Water Quality Monitoring	ALUS– Dissolved Oxygen, Nutrients, pH, Temperature SWIM– Fecal Bacteria	Wolf Creek Water Reclamation Facility Connie Duncan	QA/QC review by DEQ James Beckley 804-698-4025. Dissolved oxygen, pH, temperature, nitrate, total phosphorus, and E. coli data is acceptable for assessment use.	Reference letter February 15, 2008 to Mike Maiden. 1 station with 56 sample events collected during the six year assessment window.